THAT WHICH IS CLAIMED IS:

1. In the processing of poultry for consumption as a meat product, the improvement which comprises causing a eviscerated poultry carcass to be subjected to inside-outside washing with a microbiocidal solution of water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin.

2. The improvement as in Claim 1 wherein a mechanically transported series of poultry carcasses is automatically transported into apparatus in which the poultry carcass is subjected to said inside-outside washing.

3. The improvement as in Claim 2 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe so that (i) contaminants together with (ii) microbiocidal water solution that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass.

4. The improvement as in Claim 3 wherein in said inside-outside washing, pressurized sprays of the microbiocidal water solution are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

5. The improvement as in any of Claims 1-4 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

6. In the processing of poultry for consumption as a meat product, the improvement which comprises:

a) causing (i) at least one unopened defeathered poultry carcass and (ii) water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin, to come into contact with each other, whereby the exterior of said carcass is wetted by such water for a period of time sufficient to provide microbiocidal activity on the wet exterior of said carcass via either spraying or washing;

b) opening and eviscerating the carcass that was wetted in a);

c) causing the opened and eviscerated poultry carcass to be subjected to inside-outside washing with water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin.

7. The improvement as in Claim 6 wherein the at least one defeathered poultry carcass in a) is one of a series of unopened defeathered poultry carcasses that are mechanically transported to a station where the poultry carcasses and the water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin come into contact with each other; wherein a series of carcasses wetted in a) are mechanically transported to a station where in b) the series of carcasses are opened and eviscerated; and wherein in c) a series of poultry carcasses opened and eviscerated in b) is caused to be subjected to said inside-outside washing.

8. The improvement as in Claim 7 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe which applies pressurized sprays of water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin to the interior cavity of the carcass so that (i) contaminants together with (ii) water solution that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass; and wherein in said inside-outside washing, pressurized sprays of water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

9. The improvement as in Claim 8 wherein the treated water sprayed into the interior cavity of the carcass has a higher concentration of active bromine than the concentration of active bromine in the treated water sprayed onto the exterior the carcass.

10. The improvement as in any of Claims 6-9 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

11. In the processing of poultry for consumption as a meat product, the improvement which comprises:

a) causing (i) water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin and (ii) at least one defeathered poultry carcass to come into contact with each other before the carcass is opened, whereby the carcass exterior is wetted by such water for a period of time sufficient to provide microbiocidal activity of the wet exterior of the carcass via either spraying or washing;

b) opening and eviscerating the carcass that was wetted in a);

c) causing the eviscerated carcass to be subjected to inside-outside washing with water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin;

and

d) causing the carcass that was washed in c) to be placed in a chill tank and brought into contact with chill water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a preselected low temperature.

12. The improvement as in Claim 11 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass.

13. The improvement as in Claim 11 wherein to cause the contacting in a), said defeathered poultry carcass is immersed in water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin.

14. The improvement as in Claim 11 wherein the washing in c) is effected by use of a hand-operated sprayer.

15. The improvement as in Claim 11 wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

16. The improvement as in Claim 15 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

17. The improvement as in Claim 16 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

18. The improvement as in Claim 11 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of a hand-operated sprayer.

19. The improvement as in Claim 11 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

20. The improvement as in Claim 19 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

21. The improvement as in Claim 20 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

22. The improvement as in any of Claims 11, 15, 17, 19, or 20 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

23. In the slaughter and processing of poultry as a meat product, the improvement which comprises:

a) causing (i) water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin and (ii) at least one unopened defeathered poultry carcass to come into contact with each other before the carcass is opened, whereby the carcass exterior is wetted by such water for a period of time sufficient to provide microbiocidal activity of the wet exterior of the carcass;

b) opening and deviscerating the carcass that was wetted in a);

c) causing the deviscerated carcass to be subjected to inside-outside washing with water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin;

d) causing the carcass that was washed in c) to be placed in a chill tank and brought into contact with chill water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a preselected low temperature;

e) causing the chilled carcass to be removed from the chill tank; and

f) before packaging the chilled carcass, causing (i) the chilled carcass and (ii) water

treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin to come into contact with each other.

24. The improvement as in Claim 23 wherein to cause the contacting in f), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said chilled carcass.

25. The improvement as in Claim 23 wherein to cause the contacting in f), said chilled carcass is immersed in the water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin.

26. The improvement as in Claim 24 wherein the washing in c) is effected by use of a hand-operated sprayer.

27. The improvement as in Claim 24 wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

28. The improvement as in Claim 27 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

29. The improvement as in Claim 28 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

30. The improvement as in Claim 24 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of a hand-operated sprayer.

31. The improvement as in Claim 24 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is

sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

32. The improvement as in Claim 31 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

33. The improvement as in Claim 32 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

34. The improvement as in any of Claims 23, 27, 32, or 33 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

35. The improvement as in Claim 25 wherein the washing in c) is effected by use of a hand-operated sprayer.

36. The improvement as in Claim 25 wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

37. The improvement as in Claim 36 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

38. The improvement as in Claim 37 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

39. The improvement as in Claim 25 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of a hand-operated sprayer.

40. The improvement as in Claim 25 wherein to cause the contacting in a), water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin is sprayed on said defeathered poultry carcass; and wherein the washing in c) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

41. The improvement as in Claim 40 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

42. The improvement as in Claim 41 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

43. The improvement as in any of Claims 36, 38, or 42 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

44. The improvement as in Claim 23 wherein to cause the contacting in a)said defeathered poultry carcass is caused to travel through a body of water treated with at least one 1,3-dibromo-5,5-dialkylhydantoin while immersed in said body of water.

45. The improvement as in Claim 44 wherein said washing apparatus comprises a spray delivery system adapted to apply treated water to the interior cavity of said carcass and another spray delivery system adapted to apply treated water to the exterior of said carcass.

46. The improvement as in Claim 45 wherein the treated water applied by the spray delivery system to the interior cavity of said carcass is treated with a higher concentration of the at least one 1,3-dibromo-5,5-dialkylhydantoin than the concentration of

the at least one 1,3-dibromo-5,5-dialkylhydantoin used in the treated water applied by the spray delivery system to the exterior said carcass.

47. The improvement as in any of Claims 44-46 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.

48. In the processing of poultry for consumption as a meat product, the improvement which comprises:

A) causing an eviscerated poultry carcass to be subjected to inside-outside washing with a microbiocidal solution of water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin; and

B) causing the carcass that was washed in A) to be placed in a chill tank and brought into contact with chill water treated with a microbiocidal amount of at least one 1,3-dibromo-5,5-dialkylhydantoin, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a preselected low temperature.

49. The improvement as in Claim 48 wherein a mechanically transported series of poultry carcasses is automatically transported into apparatus in which the poultry carcass is subjected to said inside-outside washing.

50. The improvement as in Claim 49 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe so that (i) contaminants together with (ii) microbiocidal water solution that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass.

51. The improvement as in Claim 50 wherein in said inside-outside washing, pressurized sprays of the microbiocidal water solution are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

52. The improvement as in any of Claims 48-51 wherein said at least one 1,3-dibromo-5,5-dialkylhydantoin consists essentially of 1,3-dibromo-5,5-dimethylhydantoin.